

IN THE CLAIMS

Claim 1-5 (Canceled).

Claim 6 (Currently Amended): An automated synthesis apparatus for carrying out chemical reactions with reflux cooling comprising:

one or more reactor modules each having one reactor;

one or more feed vessels each for a liquid reactant or reactant mixture; and

one or more metering and feed devices positionable ~~in proximity with each said reactor~~ for introduction of the liquid reactant or reactant mixture from the one or more feed vessels into each said reactor,

wherein each said reactor includes a flat lid configured as a hollow body to enclose a hollow space, with an inlet line and an outlet line for a heat transfer medium into or out of the hollow space and with at least one through-line connected to each said reactor for introduction of each liquid reactant mixture into each said reactor.

Claim 7 (Cancelled).

Claim 8 (Currently Amended): An automated synthesis apparatus as claimed in claim [[7]] 6, wherein the lid is configured as a flat disk.

Claim 9 (Currently Amended): An automated synthesis apparatus as claimed in claim 6, wherein the inlet line for the heat transfer medium projects into the hollow space of the lid and/or the outlet ~~at least one through-line~~ line for the heat transfer medium ends at with an interior wall of the lid enclosing the hollow space.

Claim 10 (Previously Presented): An automated synthesis apparatus as claimed in claim 6, wherein the at least one through-line projects beyond a lower edge of the lid into an interior space of each said reactor.

Claim 11 (Previously Presented): An automated synthesis apparatus as claimed in claim 6, wherein the lid has an increased cross section at an underside portion thereof and at an upper side thereof.

Claim 12 (Previously Presented): An automated synthesis apparatus as claimed in claim 6, wherein said reactor has a volume of from 1-100 ml.

Claim 13 (Previously Presented): An automated synthesis apparatus as claimed in claim 6, wherein said reactor has a volume of from 10-50 ml.

Claim 14 (Previously Presented): An automated synthesis apparatus as claimed in claim 12, wherein said reactor has a volume of from 10-50 ml.

Claim 15 (New) An automated synthesis apparatus as claimed in claim 8, wherein the inlet line and the outlet line for a heat transfer medium are provided at substantially the same height along the axis of the disk of the lid.

Claim 16 (New): An automated synthesis apparatus as claimed in claim 15, wherein the inlet line for the heat transfer medium projects into the hollow space of the lid and the outlet line for the heat transfer medium ends at with an interior wall of the lid enclosing the hollow space.